

**Amendments to the Specification**

Please replace the paragraph beginning on line 17 of page 12 with the following amended paragraph:

In the PFC decomposition tower, the catalyst and the reaction gas desirably heated by a heater 6 such as an electric heater and the like. The reaction gas exhausted from the PFC decomposition tower 1 is introduced into the cooling chamber 11, and cooled by water 10 sprayed from the spray nozzle. HF and the water soluble component in the gas passed through the cooling chamber are removed by absorbing into water 10 at the exhaust washing tower 13. Then, the gas is introduced into the mist removal apparatus. In accordance with the present embodiment, packing material 12 such as an absorbing agent and the like is filled into the exhaust gas washing tower 13, in order to increase a contact efficiency of the gas with water. A cyclone type mist separating apparatus 21 is provided. The gas removed with the mist is released into atmosphere as an exhaust gas 17 by sucking the gas with the blower 16. The waste water 20 absorbed HF and others at the exhaust gas washing tower 13 is stored in the storage tank 18 once, and released by the waste water pump 19. The waste water 20 can be made harmless by a ready-made waste water treating facility in the semiconductor factory. The mist separated by the cyclone can also be stored in the waste water tank. As shown in Fig. 1, the cyclone type mist separating apparatus has a ~~direct~~-piping connection 62 extending from the lower liquid waste outlet into the storage tank and a ~~direct~~-piping connection 64 extending from the upper liquid waste outlet to the storage tank.